



A Simplified Impressionless Technique for Fabrication of a Master Model and Soft Tissue Moulage for Complete Arch Fixed Implant Supported Prosthetic Treatment



AUDREY BRIGHAM, DMD, AVINASH S. BIDRA, BDS, MS, FACP, AND RAMEEN VAFA, DMD
UNIVERSITY OF CONNECTICUT SCHOOL OF DENTAL MEDICINE, POST-GRADUATE PROSTHODONTICS, FARMINGTON, CT

INTRODUCTION

- The transition from a conversion prosthesis to a final zirconia prosthesis usually involves several steps: impression making, model fabrication, and verification with a rigid splinted jig
- These steps can be time-consuming, uncomfortable for patients, and may introduce errors that affect the prosthesis fit
- An impressionless workflow using the patient's existing conversion prosthesis simplifies this process, assuming the conversion prosthesis was made with proper treatment planning, showing ideal tooth positioning, passivity, and hygienic contours
- When these conditions are met with minimal corrections, the existing prosthesis can be used to capture data on occlusion, esthetics, fit, and comfort

CLINICAL APPLICATION

ADVANTAGES:

- 1: Reduced treatment time & steps
- 2: Improved patient comfort by eliminating intraoral impressions
- 3: Reduced risk of compounding errors, helping to maintain the passivity of the final zirconia prosthesis
- 4: Direct use of proven prosthesis that already demonstrates acceptable tooth positioning, esthetics, fit, and passivity

DISADVANTAGES:

- 1: Dependence on conversion prosthesis to be fabricated with ideal prosthodontics principles
- 2: Technique sensitivity involving multi-unit abutment analogs and an injectable soft tissue moulage material
- 3: Potential for soft tissue inaccuracies that could impact final prosthetic fit

TECHNIQUE

Step 1: Connect multi-unit abutment analogs to patient's existing conversion prosthesis



Step 2: Create a backpour cast, fully encapsulating the multiunit abutment analogs with stone



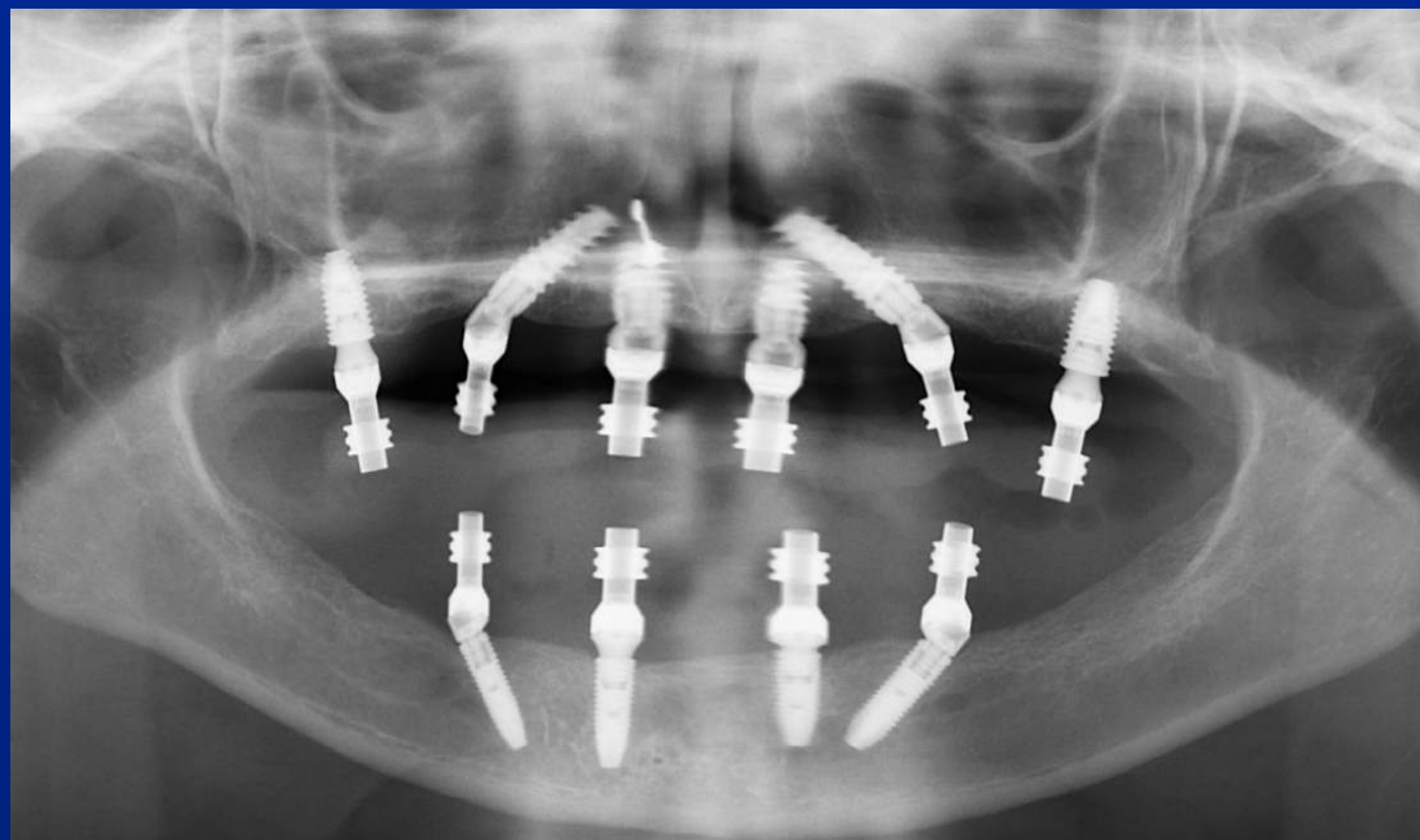
Step 3: Inject soft tissue moulage material between stone and intaglio surface of prosthesis



This now acts as the master model for the final zirconia prosthesis fabrication



CASE PRESENTATION



Panoramic radiograph with verification jigs inserted to evaluate proper fit and passivity of master model



Maxillary and mandibular conversion prostheses



Maxillary and mandibular final zirconia prostheses

REFERENCES

1. Ahlholm, P, Sipilä, K, Vallittu, P, Jakonen, M., & Kotiranta, U. (2016). Digital versus conventional impressions in fixed prosthodontics: a review. *Journal of Prosthodontics*, 27(1), 35-41.
2. Chochlidakis, K, Papaspyridakos, P, Tsigarida, A, Romeo, D., Chen, Y, Natto, Z., ... & Ercoli, C. (2020). Digital versus conventional full-arch implant impressions: a prospective study on 16 edentulous maxillae. *Journal of Prosthodontics*, 29(4), 281-286.
3. Credit to Rameen Vafa, DMD for all clinical, surgical, and treatment planning care for this patient